

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A check valve system for regulating inlet fluid and outlet fluid in a reciprocating compressor, the check valve system comprising:

a valve plate having an inlet hole that draws in a low pressure fluid by an open-and-shut operation driven by a piston movement, and a discharging hole that discharges a high pressure fluid through an open-close operation driven by a piston movement;

an inlet check valve configured as a helical plate spring structure coupled with the inlet hole of the valve plate, wherein portions of the helical plate spring structure of the inlet check valve overlap, so as to reduce noise when the inlet check valve closes; and

an outlet check valve configured as a helical plate spring structure coupled with the discharging hole of the valve plate, wherein portions of the helical plate spring structure of the outlet check valve overlap, so as to reduce noise when the outlet check valve closes.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The check valve system of claim 1, wherein the inlet check valve and the outlet check valve are structured in a stair shape of which the width becomes narrower as distance from the hole increases.

5. (Previously Presented) The check valve system of claim 4, wherein each floor of the inlet check valve and the outlet check valve are opened by a pressure of the fluid that has been generated by the piston movement.

6. (Previously Presented) The check valve system of claim 1, wherein the fluid is a refrigerant.

7. (Canceled)

8. (Canceled)

9. (Previously Presented) The check valve system of claim 1, wherein the helical plate spring structures of the inlet check valve and the outlet check valve are at least one of circular helix shape, triangular helix shape and rectangular helix shape.

10. (Canceled)